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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,214	09/28/2005	Hidefumi Fujimoto	F-8838	4506

28107 7590 11/17/2006
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EXAMINER

CUEVAS, PEDRO J

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 11/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/551,214

Applicant(s)

FUJIMOTO ET AL.

Examiner

Pedro J. Cuevas

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/28/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,885,114 B2 to Baarman et al.

Baarman et al. clearly teaches the construction of a miniature hydro-power generation system comprising:

a rotating shaft (48, 50) extended in the direction perpendicular to the water flow direction of the flow passage and arranged on a center axis of the flow passage;

an impeller (18) mounted on the rotating shaft and rotated by a water flow;

a holder (16) having a cylindrical portion with an arcuate cross section along the impeller and having a shaft support portion which supports a proximal end portion of the rotary shaft on a distal end portion of the cylindrical portion;

a magnet (84) rotated interlockingly with the impeller, disposed inside the flow passage and the coil is disposed outside the flow passage in a hermetically partitioned manner from the flow passage;

intrusion suppression means (1102) which suppresses the intrusion of foreign substances between the blades, constituted by forming spear-headed thread-like grooves

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(1502) capable of generating water flow which pushes back the foreign substance to the blade side due to the rotation of the impeller on an outer periphery of the impeller; and a coil (86) arranged to face the magnet than opposed manner; wherein:

the holder in the power generating unit is mounted on a peripheral surface of an opening portion formed in the apparatus body (Figure 22) in a state that the shaft support portion is inserted into the inside of the flow passage from the opening portion, and the impeller forms blades (42) in the outward radial direction and forms clearances allowing water to pass the inside of blades;

the holder of the power generating unit has a distal end portion thereof supported in a state that the distal end is fitted in an inner surface of the apparatus body which faces the opening portion in an opposed manner;

clearances (Figure 22) are formed between outer peripheries of the blades and an inner wall of the flow passage in a state that the clearances are arranged asymmetrical with respect to an axis of the rotating shaft; and

a guide member (1108) which guides water toward the impeller is formed above the cylindrical portion.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,885,114 B2 to Baarman et al. in view of U.S. Patent No. 4,246,753 A to Redmond.

Baarman et al. disclose the construction of a miniature hydro-power generation system as disclosed above.

However, it fails to disclose a second guide member which guides water toward the impeller is arranged at a position where the second guide member faces the guide member in an opposed manner with the rotary shaft sandwiched therebetween.

Redmond teach the construction of energy salvaging system comprising a guide member (48, 50) which guides water toward an impeller (38) arranged at a position in an opposed manner of the water flow (from valve 20), with the rotary shaft (28) sandwiched therebetween, for the purpose of cleaning and assisting the rotational movement of impellers or vanes (30).

It would have been obvious to one skilled in the art at the time the invention was made to use the guide member disclosed by Redmond on the miniature hydro-power generation system disclosed by Baarman et al. for the purpose of cleaning and assisting the rotational movement of impellers or vanes (30).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (571) 272-2021. The examiner can normally be reached on M-F from 8:30 - 6:00.

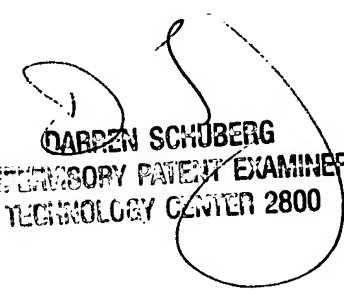
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Pedro J. Cuevas
November 12, 2006



DARREN SCHUBERG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800